



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBT18560-9
Job Sheet 170703



Part No: RBT18560-9

Job Qty: 6 ea

Part Name: Cross Bar



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/18/18

Job Tracking No:

Due Date: 1/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBT18560 Rev4 IPP Rev A 17.11.13 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	6 Ea		1/30/18	0.00	0.00	Start Up Machining-4		mk 18/02/04
105	Bandsaw	6 pcs		1/30/18	0.00	0.60	Bandsaw1		mk 18/02/04
110	Mori Seiki	6 pcs		1/30/18	0.00	6.00	MORI NV5000-1		mk 18/02/04
120	QC	6 pcs		1/30/18	0.00	0.00	QC2		mk 18/02/04
130	QC	6 pcs		1/30/18	0.00	0.00	QC8		B.E 18-02-05
135	HandFinish	6 pcs		1/31/18	0.00	0.60	HandFinish7		BEA 18-02-05
150	Outsource	6 pcs		1/31/18	0.00	0.00	Outsource12		mk 18/03/05
160	Packaging	6 pcs		1/31/18	0.00	0.00	Packaging2		mk 18/03/05
170	QC	6 pcs		1/31/18	0.00	0.00	QC6		38
180	Packaging	6 pcs		1/31/18	0.00	0.00	Packaging3		38
230	QC21-SA	6 Ea		1/31/18	0.00	0.00			21

Part Op 105 - Cut blanks to 3.95"

Descriptions: 110 - 1-Machine as per folio FB728 FOLIO REV: _____ DWG REV: _____ 2-Deburr 3-Engrave T/N
And / or S/N number as required Using Marktronic engraver as per DWG.

135 - Bead blast

150 - Issue P/O to Groupe Altech; PO 038997 -Black oxide finish, MIL-C-13924C Class 1 -Certificate of
Conformity is required

FEB 08 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M1018B0.500X01.000	1010-1025 Steel Bar .500 X 1.000	1.9800 ft (.33 ea)	90-Start up Operation	

Part Specifications

Specifications could not be found.

5018266 *5038789

Plex 1/18/18 1:21 PM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

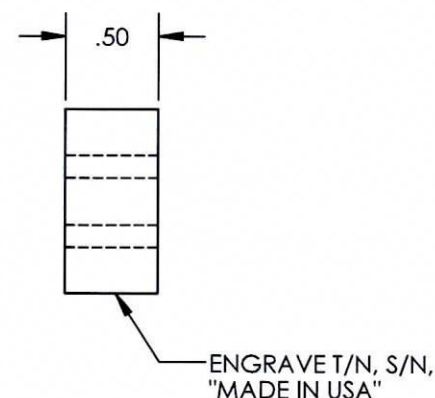
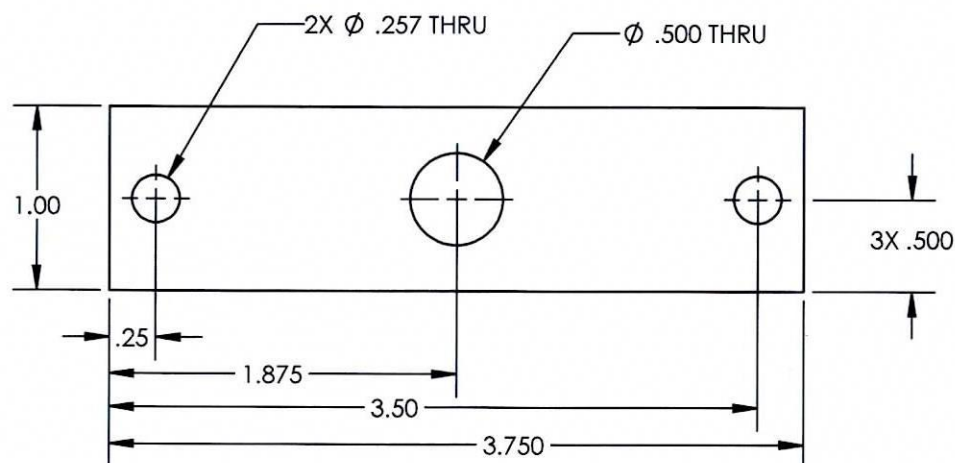
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Skid-tube ☐ Cross tube ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td style="width:50%;"> Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ </td> <td style="width:50%;"> Engineering ☐ Quality ☐ Other ☐ </td> </tr> </table>		Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐	Engineering ☐ Quality ☐ Other ☐																																																																																				
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Date : _____		Step #: _____		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																																																							
Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K64 1K7 CANADA TEL.: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com Cross Bar PART NO: RBT18560-9 Original Serial #: S038790 Revision: Operation: Start up Operation 02/04/18 Change No: Job No: 170703																																																																																											
Description Work Order Deviation																																																																																											
Root Cause <table style="width:100%;"> <tr><td>Environment</td><td>☐</td><td>No Re-verification</td><td>☐</td></tr> <tr><td>Design</td><td>☐</td><td>Operator</td><td>☐</td></tr> <tr><td>Doc/Data</td><td>☐</td><td>Offset/Setup</td><td>☐</td></tr> <tr><td>Equip/Tooling</td><td>☐</td><td>Supplier</td><td>☐</td></tr> <tr><td>Handling/Pre</td><td>☐</td><td>Training</td><td>☐</td></tr> <tr><td>Material</td><td>☐</td><td>Use for Testing</td><td>☐</td></tr> <tr><td>Internal Transport</td><td>☐</td><td>Poor Information</td><td>☐</td></tr> <tr><td>Tribal Knowledge</td><td>☐</td><td>Rushing</td><td>☐</td></tr> <tr><td>LOA</td><td>☐</td><td>Product Improvement</td><td>☐</td></tr> <tr><td>Substation</td><td>☐</td><td>Process Improvement</td><td>☐</td></tr> <tr><td>Past Expiry Date</td><td>☐</td><td>Manufacturing Process</td><td>☐</td></tr> <tr><td>Misidentified</td><td>☐</td><td>Past Due</td><td>☐</td></tr> </table>		Environment	☐	No Re-verification	☐	Design	☐	Operator	☐	Doc/Data	☐	Offset/Setup	☐	Equip/Tooling	☐	Supplier	☐	Handling/Pre	☐	Training	☐	Material	☐	Use for Testing	☐	Internal Transport	☐	Poor Information	☐	Tribal Knowledge	☐	Rushing	☐	LOA	☐	Product Improvement	☐	Substation	☐	Process Improvement	☐	Past Expiry Date	☐	Manufacturing Process	☐	Misidentified	☐	Past Due	☐	<table style="width:100%;"> <tr><td>Pressure/F</td><td>☐</td><td>Power Loss/Surge</td><td>☐</td></tr> <tr><td>Bending</td><td>☐</td><td>olio/Program</td><td>☐</td></tr> <tr><td>Centre Not</td><td>☐</td><td>Grain</td><td>☐</td></tr> <tr><td>Cracks</td><td>☐</td><td>Weld</td><td>☐</td></tr> <tr><td>Crimp/Kin</td><td>☐</td><td>Wrong Stock Pulled</td><td>☐</td></tr> <tr><td>Cuffs</td><td>☐</td><td>Out of Sequence</td><td>☐</td></tr> <tr><td>Crushing</td><td>☐</td><td>Off-set</td><td>☐</td></tr> <tr><td>Heat Treat</td><td>☐</td><td>Mislabeled</td><td>☐</td></tr> <tr><td>Wave/Twi</td><td>☐</td><td>Fit/Function</td><td>☐</td></tr> <tr><td>Marks/Ch</td><td>☐</td><td>Misaligned/off center</td><td>☐</td></tr> </table>		Pressure/F	☐	Power Loss/Surge	☐	Bending	☐	olio/Program	☐	Centre Not	☐	Grain	☐	Cracks	☐	Weld	☐	Crimp/Kin	☐	Wrong Stock Pulled	☐	Cuffs	☐	Out of Sequence	☐	Crushing	☐	Off-set	☐	Heat Treat	☐	Mislabeled	☐	Wave/Twi	☐	Fit/Function	☐	Marks/Ch	☐	Misaligned/off center	☐
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OTHER : _____																																																																																											

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
3		CH'D -9 HOLE FROM Ø.250 TO Ø.257 PER S.E.	12/29/2011	RJC	SE
4	15-0472	CH'D -9 ENGRAVE NOTE TO: T/N, S/N, "MADE IN USA"	1/5/2016	SM	



SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 170258 MJS
1801-12

⑨

CROSS BAR

DART AEROSPACE	
TITLE ENGINE/GEARBOX SEAL PULLER	
DWG NO. RBT18560-9	REV 4
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED
HEAT	DIMENSIONS ARE IN INCHES
TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH BLACK OXIDE	.XX ± .01 ANGLES ± 5°
SPEC	.X ± .1 SURFACES = 125
DRAWN BY: COLE	1. BREAK ALL SHARP EDGES Ø15 x 45° OR .015R
CHECKED:	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR:	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR:	USED ON MODEL
APPROVED: WEIL	SEE SHT 1
SCALE 1:1	DATE 5/2/2002
SHEET 5 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038997

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO038997
PO Date: 2/8/18
Due Date: 2/15/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

E-MAILED
FEB 12 2018

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	169930	RBW6405G02131-3G-5	Quarter Bell -Issue P/O to Groupe Altech; P/O _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	2/15/18	4 pcs	0 pcs	4 pcs	\$11.25/pcs	\$45.00
						✓ 4x			At 18/02/15	
2	170256	RBT18560-3	Ring -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	2/15/18	7 pcs	0 pcs	7 pcs	\$6.3158/pcs	\$44.21
						✓ 7x			At 18/03/05	
3	170479	646.3910	Shim Issue P/O: _____ Cad Plating, CAD PLATE PER QQ-P-416, TYPE II, CLASS 2, CL2	Firmed	2/15/18	33 pcs	0 pcs	33 pcs	\$4.16/pcs	\$137.28
						✓ 33x			At 18/02/15	
4	170481	646.3912	Shim Issue P/O: _____ Cat Plating, CAD PLATE PER QQ-P-416, TYPE II, CLASS 2, CL2	Firmed	2/15/18	22 pcs	0 pcs	22 pcs	\$4.16/pcs	\$91.52
						✓ 22x			At 18/03/05	
5	170703	RBT18560-9	Cross Bar -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	2/15/18	6 pcs	0 pcs	6 pcs	\$6.3158/pcs	\$37.89
						✓ 6x			At 18/03/05	
6	171015	RBW6405G02131-3G-5	Quarter Bell -Issue P/O to Groupe Altech;	Firmed	2/15/18	4 pcs	0 pcs	4 pcs	\$11.25/pcs	\$45.00
						✓ 4x			At 18/02/15	



Certificat de Conformité / Certificate of Compliance

(006598-2)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

006598 - 2

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
19-Feb-2018		Curtis Anderson		038997				
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
2	RBT18560-3 Rev.	RBT18560-11 BLACK OXIDE FINISH MIL-C-13924C CLASS 1	OXIDE-BLACK CH	7	7	0	0	0
4	646.3912 Rev.	646.3912 CAD PLATE PER QQ-P-416 TYPE 2 CLASS 2 ,CL2	CADMIUM CH	22	22	0	0	0
5	RBT18560-9 Rev.	RBT18560-9 BLACK OXIDE FINISH MIL-C-13924C CLASS 1	OXIDE-BLACK CH	6	6	0	0	0
7	RB6796941-201-4 Rev.	PLUG BLACK OXIDE MIL-C-13924C CLASS 1	BLACK-OXIDE CH	6	6	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.